

PT.
10-1-2004

12. The DC/DC converter of claim 8 wherein said third switching device is turned off after said second switching device is turned on during said second half cycle.

13. The DC/DC converter of claim ⁸~~13~~ wherein said first capacitor charges and said second capacitor discharges when said third switching device is turned off.

14. The DC/DC converter of claim 13 wherein said fourth switching device is turned on when said second capacitor is discharged.

15. A method for operating a DC/DC converter including a primary side bridge rectifier with a first leg that is connected across said input voltage and includes a first switching circuit and a second switching circuit, and a second leg that is connected across said input voltage and that includes a third switching circuit and a fourth switching circuit, comprising:

 during an first half cycle:

 turning on said first switching circuit on with hard switching;

10 turning off said fourth switching device with zero voltage switching (ZVS);

 turning said third switching circuit on with said ZVS; and

15 turning said first switching circuit off with hard switching.